## A CATALYST FOR PRODUCING ALIPHATIC POLYCARBONATE AND THE PREPARATION THEREOF

## Abstract of the Disclosure

This invention relates to a catalyst for producing aliphatic polycarbonate, which is composed of a rare-earth coordination compound; an alkyl metal compound; a polyol; and a carbonate. The catalytic efficiency of the catalyst of the present invention is more than  $8x10^4$  g polymer/mol RE(RE is rare earth metal). The number average molecular weight of the polymer is higher than 30,000. The degree of carbon dioxide fixation is more than 42 wt % and the content of alternative sequence structure exceeds 97%.

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